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(c) 2003 EPO. All rts. reserv.
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                                                                  <No. of Patents: 010>
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WO 9853802 A1 19981203 WO 98US11010 A 19980529
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Priority Data (No, Kind, Date):
     AR 9702351 A 19970530
     WO 98US11010 W 19980529
     US 86871 A 19980529
PATENT FAMILY:
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  Patent (No, Kind, Date): AU 9877065 A1 19981230
     MULTI-LAYERED OSMOTIC DEVICE (English)
     Patent Assignee: PHOENIX U S A INC LAB
     Author (Inventor): FAOUR JOAQUINA; MAYORGA JORGE
     Priority (No, Kind, Date): AR 9702351 A 19970530; WO 98US11010 W
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     Applic (No, Kind, Date): AU 9877065 A
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     CA Abstract No: * 130(04)043357S
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AUSTRALIA (AU)
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BRAZIL (BR)
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Patent (No, Kind, Date): BR 9802144 A 19990525 DISPOSITIVO OSMOTICO MULTICAPA APERFEICOADO (Portugese)

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Patent Assignee: MAYORGA JORGE EZEQUIEL (AR)
    Author (Inventor): MAYORGA JORGE EZEQUIEL (AR)
    Priority (No, Kind, Date): AR 9702351 A
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      19980529
    Applic (No, Kind, Date): BR 98U2144 A
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BRAZIL (BR)
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CANADA (CA)
  Patent (No, Kind, Date): CA 2261787 AA 19981203
    MULTI-LAYERED OSMOTIC DEVICE (English; French)
    Patent Assignee: PHOENIX U S A INC LAB (US)
    Author (Inventor): FAOUR JOAQUINA (AR); MAYORGA JORGE (AR)
    Priority (No, Kind, Date):
                              AR 9702351 A
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CANADA (CA)
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CHINA (CN)
  Patent (No, Kind, Date): CN 1228020 T
    MULTI-LAYERED OSMOTIC DEVICE (English)
    Patent Assignee: PHOENIX U S A INC LAB (US)
   Author (Inventor): FAOUR JOAQUINA (US); MAYORGA JORGE (US)
    Priority (No, Kind, Date):
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 Patent (No, Kind, Date): EP 914098 A1 19990512
   MULTI-LAYERED OSMOTIC DEVICE (English; French; German)
   Patent Assignee: PHOENIX U S A INC LAB (US)
   Author (Inventor): FAOUR JOAQUINA (AR); MAYORGA JORGE (AR)
   Priority (No, Kind, Date):
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    Patent Assignee: PHOENIX U S A INC LAB (US)
   Author (Inventor): FAOUR JOAQUINA (AR); MAYORGA JORGE (AR)
    Priority (No, Kind, Date): AR 9702351 A 19970530; WO 98US11010 W
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OSMOTICA CORP.

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  Patent (No, Kind, Date): IL 128043 A0 19991130
    MULTI-LAYERED OSMOTIC DEVICE (English)
    Patent Assignee: PHOENIX U S A INC LAB
    Priority (No, Kind, Date):
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    Applic (No, Kind, Date): IL 128043 A
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JAPAN (JP)
  Patent (No, Kind, Date): JP 2000516637 T2 20001212
    Priority (No, Kind, Date): AR 9702351 A 19970530; WO 98US11010 W
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               A61K-009/24; A61K-031/137; A61K-031/341; A61K-031/40;
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    CA Abstract No: * 130(04)043357S
    Derwent WPI Acc No: * C 99-034915
    Language of Document: Japanese
UNITED STATES OF AMERICA (US)
  Patent (No, Kind, Date): US 6004582 A
    MULTI-LAYERED OSMOTIC DEVICE (English)
    Patent Assignee: PHOENIX U S A INC LAB (AR)
    Author (Inventor): FAOUR JOAQUINA (AR); MAYORGA JORGE (AR)
    Priority (No, Kind, Date): US 86871 A 19980529; AR 9702351 A
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    IPC: * A61K-009/22; A61K-009/24
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  Patent (No, Kind, Date): WO 9853802 A1 19981203
   MULTI-LAYERED OSMOTIC DEVICE (English)
   Patent Assignee:
                       PHOENIX U S A INC LAB (US); FAOUR JOAQUINA (AR);
     MAYORGA JORGE (AR)
   Author (Inventor): FAOUR JOAQUINA (AR); MAYORGA JORGE (AR)
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    IPC: * A61K-009/22
    CA Abstract No: * 130(04)043357S; 130(04)043357S
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                                  (EP: PCT ANM. ART. 158 (1))
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Channavajjala Pat. No. 6,004,582

1/1 PLUSPAT - ©QUESTEL-ORBIT

PN - US6004582 A 19991221 [US6004582]

TI - (A) Multi-layered osmotic device

PA - (A) PHOENIX U S A INC LAB (AR)

IN - (A) FAOUR JOAQUINA (AR); MAYORGA JORGE (AR)

AP - US8687198 19980529 [1998US-0086871]

PR - US8687198 19980529 [1998US-0086871] AR9702351 19970530 [1997AR-0002351]

IC - (A) A61K-009/22 A61K-009/24

EC - A61K-009/00L4

PCL - ORIGINAL (O): 424473000; CROSS-REFERENCE (X): 424468000 424472000 424474000 424475000 424476000 424479000 424482000

DT - Corresponding document

CT - US4014334; US4335099; US4576604; US4673405; US4801461; US4810502; US5035897; US5558879; US5681584

STG - (A) United States patent

AB - The present invention provides a simple and improved multi-layered osmotic device (1) that is capable of delivering a first active agent in an outer lamina (2) to one environment of use and a second active agent in the core (5) to another environment of use. Particular embodiments of the invention provide osmotic devices in which the first and second active agents are similar or dissimilar. An erodible polymer coat (3) between an internal semipermeable membrane (4) and a second active agent-containing external coat (2) comprises poly(vinylpyrrolidone)-(vinyl acetate) copolymer. This particular erodible polymer results in an improved multi-layered osmotic device possessing advantages over related devices known in the art. The active agent in the core (5) is delivered through a pore (6) containing an erodible plug (7). The osmotic device (1) can be coated by a final finish coat (8).